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On Six New Rotatoria from Japan¹⁾

With 1 Text-figure

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During the last two years, while examination was being made of the rotifer fauna of Japan, some new species were found both among the preserved specimens in our laboratory and newly collected samples. In the present report are described six new species, of which four belong to the genus *Lecane* and one each to *Lepadella* and *Testudinella*.

DESCRIPTION OF THE SPECIES

Lecane uenoi new species (fig. 1).

Lorica broadly oval; dorsal anterior margin slightly concave; ventral anterior margin convex, with a small notch at center; dorsal plate broader than ventral plate. First foot segment rather long, but second one broad. About two-thirds of toe length fused, entirely parallel-sided. Toes terminating in short claws which curve outwards.

length of dorsal plate	50 μ
width of dorsal plate	48
anterior width of dorsal plate	36
length of ventral plate	50
width of ventral plate	41
anterior width of ventral plate	32
length of toe without claw	14
length of claw	4

1) Contributions from the Otsu Hydrobiological Station of University of Kyoto, No. 130.

This species is found among the samples collected on October 22, 1948, at Rokujizo Pond, Kyoto Prefecture. It shows very peculiar features, in many respects worthy of being classified as a new species.

Lecane curvicerata new species (figs. 2, 3, 4).

Lorica ovate in outline; anterior margins almost coincident and slightly convex, at external angles provided with two spines, each of which is curved slightly inwards and strongly upwards. Dorsal plate ovate, truncated posteriorly; anterior half of side smooth, but other half slightly undulating. Surface markings consist of four rows of facettings of ordinary pattern. Ventral plate narrower than dorsal plate. Second foot-joint irregular in form. Toes long, slender and parallel-sided; each toe terminating in a spine-like claw which bears small basal spicules.

total length	130 μ
length of dorsal plate	64
width of dorsal plate	48
length of ventral plate	70
width of ventral plate	43
width between anterior spines	35
length of anterior spine	10
length of toe without claw	20
length of claw	7

This species is found in the collection from Rokujizo Pond made by Prof. T. Kawamura on October 14, 1925. It resembles *Lecane eutarsa* in some respects; for instance, the state of the markings on the dorsal surface, and the form of the second foot-joint. However, there are many points of differences between *Lecane eutarsa* and the present species; that is to say, the size of the latter is much smaller than the former; the anterior margin is concave in the former but convex in the latter; the posterior half of the side of the latter is undulated, while the side of the former is entirely smooth. Especially, the form of the anterior spine of the latter is quite peculiar.

Lecane hegurensis new species (figs. 5, 6, 7).

Lorica ovate in outline; dorso-ventral depth considerable; anterior margins coincident, slightly convex at central portion, almost straight at lateral portions, at external angles with small spines. Dorsal plate broadly ovate, parallel-sided anteriorly and slightly undulated and truncated posteriorly; two pairs of longitudinal ridges situated on dorsal surface. Ventral plate as wide as dorsal plate; lateral sulci ordinary; posterior segment broad and round, projecting considerably

beyond dorsal plate. First foot-joint small and inconspicuous, second foot-joint comparatively short and subtrapezoid. Toes fairly long, terminating in acutely pointed claws. Claw long and slender, two-thirds of length of claw, very thin and slightly incurved. This species resembles *Lecane aspasia* in some respects, but the dorsal ridges, the

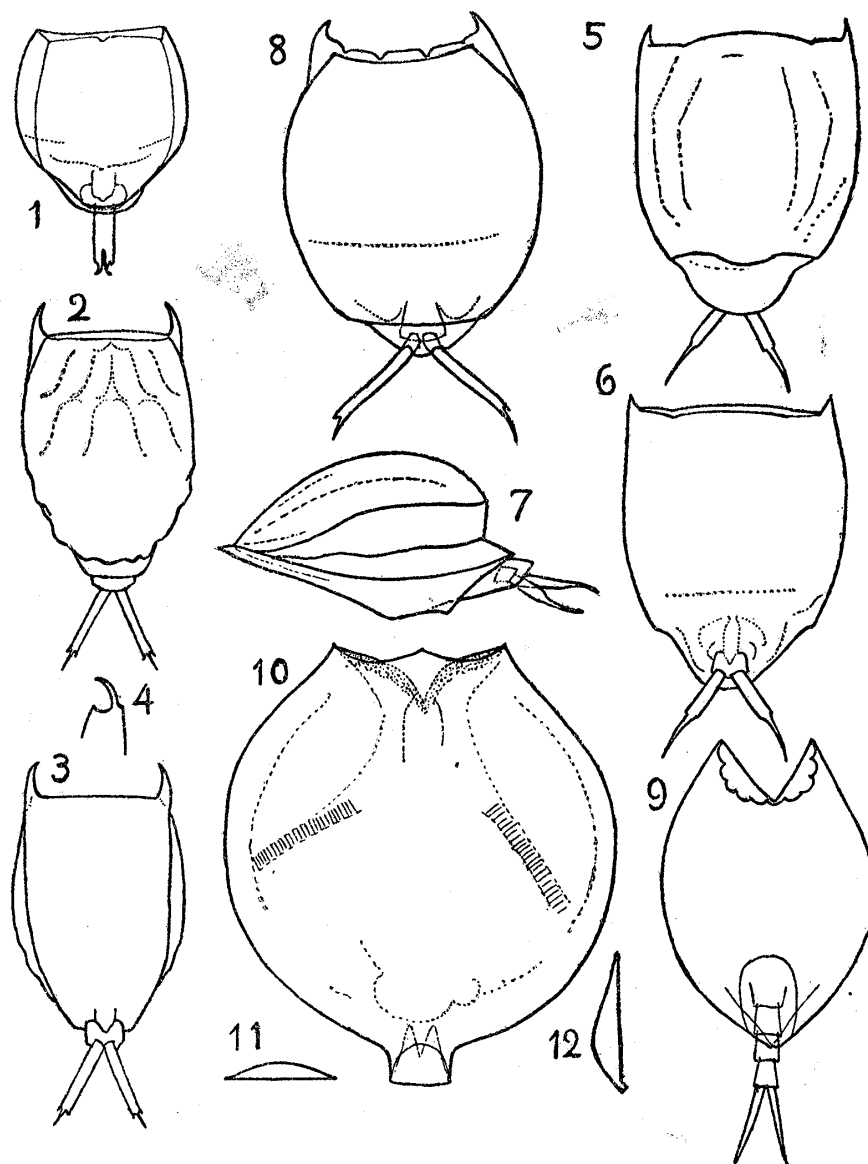


Fig. 1. *Lecane uenoi* dorsal view. Fig. 2. *Lecane curvicerata* dorsal view. Fig. 3. *Lecane curvicerata* ventral view. Fig. 4. *Lecane curvicerata* side view of anterior part. Fig. 5. *Lecane hegurensis* dorsal view. Fig. 6. *Lecane hegurensis* ventral view. Fig. 7. *Lecane hegurensis* side view. Fig. 8. *Lecane triloba* dorsal view. Fig. 9. *Lepadella serrata* dorsal view. Fig. 10. *Testudinella brevicaudata* dorsal view. Fig. 11. *Testudinella brevicaudata* cross section. Fig. 12. *Testudinella brevicaudata* longitudinal section.

form of the second foot-joint, the toes, and the very small size of the lorica are the chief different features from *L. aspasia*.

	present species	<i>L. aspasia</i>
length of dorsal plate	70 μ	82 μ
width of dorsal plate	60	75
length of ventral plate	85	94
width of ventral plate	60	75
width between anterior spines	55	63
length of spine	6	—
length of toe without claw	15	30
length of claw	13	8
maximum height of lorica	46	

This species is found among material collected by Mr. Mashiko on August 3, 1948 from a brackish-water pool on Hegura Island in the Japan Sea. The pH of the pool-water was 8.4 and the chlorine content was 3.301 gr. per liter of water. The author wishes to express his heartfelt thanks to Mr. Mashiko who gave him an opportunity to examine the valuable sample.

Lecane triloba new species (fig. 8).

Lorica broadly ovate; anterior margin concave, at external corners armed with incurved spines. Dorsal anterior margin smooth, but ventral margin divided into three lobes by two small notches; dorsal plate of equal width with ventral plate; posterior dorsal margin smooth and somewhat truncated. Ventral posterior margin also divided into three lobes by two small cuts; central lobe somewhat tail-like; ventral plate much longer than the dorsal. First foot-joint indistinct, second foot-joint subsquare and situated at some distance in front of ventral posterior margin. Toes long and slightly sigmoid-curved, terminating in acute claws with basal spicules.

length of dorsal plate	120 μ
length of ventral plate	153
width of lorica	116
distance between anterior spines	64
length of toe without claw	50
length of claw	17

This species is fairly common in the samples collected on October 22, 1927 from a pond in a western suburb of Akashi city, Hyogo Prefecture. It is quite distinguishable from any other species of the genus and has not been found elsewhere.

Lepadella serrata new species (fig. 9).

Lorica elliptical in outline; depressed dorso-ventrally; dorsal anterior sinus widely V-shaped; posterior ventral sinus deep and narrow; ventral anterior sinus large, margin of sinus composed of a series of several small serrated processes. Toes separated completely; toe shorter than length of foot. Posterior end of lorica nearly right-angled.

length of lorica	89 μ
width of lorica	61
width between anterior points	28
depth of anterior points	20
depth of ventral posterior sinus	23
length of foot	30
length of toe	21

This species is found in the plankton samples collected on August 7, 1949 among water weeds of Chôko, one of the small lakes of the Matsubara lake district, Nagano Prefecture.

The form of the specimen is different from any other members of the genus *Lepadella* in many points, especially the remarkable serrated margin of the ventral anterior sinus of the lorica.

Testudinella brevicaudata new species (figs. 10, 11, 12).

Lorica almost circular in outline; dorsal anterior margin slightly pointed at center, concave on each side. Ventral anterior margin rounded into a rather deep V-shaped sinus. Dorsal plate depressed arch in cross section; in side view, gradual elevation of dorsal surface extending about two-thirds length of lorica. Ventral plate almost flat; foot opening situated at terminal portion of short stalk-like projection which bends slightly downwards from posterior margin of lorica.

length of lorica	124 μ
width of lorica	107
length of projection	10
width of projection	15
width of anterior margin	48

The present species is found in material collected in 1948 among detritus at Rokujizo Pond. It resembles *Testudinella discoida* in general contour, but differs from it in its smaller size, presence of the posterior projection and position of the foot opening. Accordingly, it is quite distinguishable from any other species of the genus *Testudinella*.

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